

GAO

Report to the Ranking Minority
Member, Subcommittee on National
Security and International Relations,
House Committee on Oversight and
Government Reform

January 2007

CHEMICAL AND BIOLOGICAL DEFENSE

Updated Intelligence,
Clear Guidance, and
Consistent Priorities
Needed to Guide
Investments in
Collective Protection



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Why GAO Did This Study

For the military to operate in environments contaminated by chemical and biological warfare agents, the Department of Defense (DOD) has developed collective protection equipment to provide a protected environment for group activities. GAO previously reported persistent problems in providing collective protection for U.S. forces in high threat areas overseas. In this report, GAO examined (1) current intelligence assessments of chemical and biological threats, (2) the extent to which DOD has provided collective protection at critical overseas facilities and major expeditionary warfighting assets, and (3) DOD's framework for managing installation protection policies and prioritizing critical installations for funding. In conducting this review, GAO developed criteria to identify critical sites in the absence of a DOD priority listing of such sites in overseas high threat areas—areas at high risk of terrorist or missile attack.

What GAO Recommends

GAO recommends that the Director of National Intelligence (DNI) update the chemical warfare National Intelligence Estimate and that DOD take actions to provide clearer, more consistent policies that guide the funding and placement of collective protection and other installation preparedness activities. In comments on a draft of this report, the DNI and DOD generally agreed with all of our recommendations.

www.gao.gov/cgi-bin/getrpt?GAO-07-113.

To view the full product, including the scope and methodology, click on the link above. For more information, contact Davi D'Agostino at (202) 512-5431 or dagostinod@gao.gov.

CHEMICAL AND BIOLOGICAL DEFENSE

Updated Intelligence, Clear Guidance, and Consistent Priorities Needed to Guide Investments in Collective Protection

What GAO Found

The intelligence community is struggling with the changing security environment and communicating the uncertainties in the quality of chemical and biological threat information. Generally, the two key chemical and biological threats facing DOD forces are from hostile nations using missiles, or terrorist groups (e.g., Al Qaeda) using devices to release chemical or biological agents. DOD expects these threats to grow. The intelligence community has recognized the need to communicate more candidly about the uncertainties in intelligence regarding the type and amount of agents, the number of missiles likely armed with chemical and biological warheads, and the method of dissemination. Communicating these uncertainties helps in understanding the actual threat posed by our adversaries and in making risk management decisions on investments. However, while the intelligence community, under the Director of National Intelligence, has issued a new 2006 intelligence estimate regarding the uncertainties in the biological warfare threat, it has not issued an update on the chemical warfare threat since 2002 due to evolving assessment and communication policies.

Despite the growing threat, collective protection at both critical overseas facilities and in some major expeditionary warfighting assets (e.g., infantry units, naval vessels, and medical units) is limited and inconsistent. Nearly 80 percent of overseas sites identified as critical by combatant commanders based on criteria GAO provided them, did not have collective protection equipment—including about two-thirds of the critical sites in high threat areas. At the same time, GAO found problems such as often vague and inconsistent guidance on the use of collective protection. DOD guidance encourages the use of collective protection but does not prescribe specific standards to guide strategic decisions on its use. Military service guidance, except the Air Force, was also vague and inconsistent on key issues such as (1) whether decisions on the need for the equipment should be left to local commanders' discretion, (2) when the various types of collective protection are most appropriate, and (3) what functions need to be protected. Thus, commanders have difficulty determining the need for collective protection.

DOD's framework for managing collective protection and other related installation protection policies and activities is fragmented, which affects DOD's ability to ensure that collective protection resources are allocated efficiently and effectively. Prior GAO and DOD reports have highlighted continuing problems with fragmented policies and operating concepts among the many and varied programs and organizations involved. These problems result in unresolved conflict about issues, such as which critical facilities should receive priority for funding improvements, and make it difficult for DOD to balance competing warfighting and other needs and ensure that funding resources are prudently allocated. Previously, GAO and others have recommended DOD designate a single authority to integrate and coordinate installation protection policies and activities, and DOD agreed. However, despite a new ongoing reorganization, it has not yet done so.

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Abbreviations

DOD	Department of Defense
JPEO	Joint Program Executive Office for Chemical and Biological Defense

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United States Government Accountability Office
Washington, DC 20548

January 19, 2007

The Honorable Christopher Shays
Ranking Minority Member
Subcommittee on National Security and
International Relations
Committee on Oversight and Government Reform
House of Representatives

Dear Mr. Shays:

The U.S. security environment has changed markedly in recent years. Once focused on the Cold War threat of the Soviet Union, with its nuclear arsenal and massive conventional forces, the Department of Defense (DOD) and intelligence community now face a more diverse threat. The new security environment includes not only hostile nation states, but also terrorist organizations around the world who may possess asymmetric capabilities, including weapons of mass destruction such as nuclear, chemical, and biological weapons. Many of these weapons can be difficult to detect, since much of the technology, equipment, and materials needed to develop them also have legitimate commercial applications. DOD has repeatedly emphasized the growing threat of the use of chemical and biological weapons against U.S. forces both at home and abroad, and recently reported that it is continuing to increase funding for defenses against such weapons.¹ Understanding the nature of the chemical and biological threat from adversaries, and the dangers this threat poses to U.S. forces, is fundamental to DOD's ability to make risk management decisions regarding where and how to focus investments in defending U.S. forces.

In the event of chemical or biological weapons use, DOD policy emphasizes avoidance of contaminated areas. When avoidance is not possible, DOD normally provides protective suits for military personnel required to operate in contaminated environments. However, while DOD has made improvements, these suits limit mobility and are difficult to wear for long periods. For this reason, collective protection areas, which are specially constructed environments such as portable tent systems or

¹Department of Defense, *Quadrennial Defense Review Report* (Washington, D.C.: Feb. 6, 2006).

rooms with equipment designed to provide a pressurized and filtered environment for groups of personnel, may be needed at some fixed facilities and expeditionary warfighting assets, including ground, naval, and air assets. Such collective protection equipment enables individuals to remove their individual protective gear and still perform essential activities, such as operational command and control, medical, and certain logistics functions; or simply rest. In prior reports on chemical and biological defense, we have reported persistent problems regarding the provision and effectiveness of collective protection for U.S. forces in high threat areas overseas. DOD states that American interests abroad will be the most likely targets in the coming decade. The department operates numerous overseas facilities that are critical to U.S. ability to project, support, and sustain military forces and operations worldwide during war time.

DOD's approach to risk management requires commanders to combine assessments of the threats to facilities, their vulnerabilities, and critical assets into an overall assessment of risk, which is then used to allocate resources to correct vulnerabilities. DOD introduced its risk management approach in 2001. However, we recently reported that it was facing difficulties in its implementation.² For example, we found that DOD's organizational culture resists department-level approaches to priority setting and investment decisions. In addition, DOD also faced challenges in integrating its management framework and reform initiatives into a coherent, unified management approach. DOD is currently examining a series of management reforms to help unify and improve operations. You asked that we review the effectiveness of DOD's program to provide collective protection for U.S. forces. In this report, we examine (1) current intelligence assessments of chemical and biological threats, (2) the extent to which DOD has provided collective protection against vulnerabilities at critical fixed facilities overseas and major warfighting expeditionary assets, and (3) DOD's framework for managing overall installation protection policies and prioritizing critical installations for funding. This report is an unclassified version of our December 2006 classified report.

To examine the current intelligence assessments of chemical and biological threats to DOD facilities, we reviewed briefings and other

²GAO, *Defense Management: Additional Actions Needed to Enhance DOD's Risk-Based Approach for Making Resource Decisions*, [GAO-06-13](#), (Washington, D.C.: Nov. 15, 2005).

intelligence products, and we interviewed officials from a variety of national and DOD intelligence organizations. These organizations included the Office of the Director of National Intelligence, Central Intelligence Agency, Defense Intelligence Agency, and each of the four regional combatant commands with critical overseas facilities in their areas of operations. For the purposes of our review, we defined high threat areas to be those within missile range of three nation states with some chemical and biological warfare capabilities or those at high risk of terrorist attack. To determine the levels of collective protection provided to critical facilities, in the absence of a DOD critical installation priority listing across the services, we worked with a number of DOD offices to develop the criteria needed to determine which sites were considered critical. The criterion called for DOD to identify those sites that must remain operational during a chemical or biological event, such as command and control nodes, rest and relief areas, emergency medical locations, and intelligence sites in order for DOD to complete its mission; and where there would be no capability to transfer the function or capability to an alternate location. The Joint Staff then assisted us in requesting information from the responsible combatant commands regarding which installations and facilities overseas were considered critical from their warfighting perspectives using our criteria, and the amount and type of collective protection equipment available at each site. We also worked with military service and department-level offices to obtain detailed listings of the type and amount of equipment provided in major expeditionary assets, such as ground forces, naval vessels, and aircraft. To examine DOD's framework for managing overall installation protection activities and for prioritizing critical installations for funding, we reviewed applicable regulations, policies, and reports by GAO and DOD. We also conducted interviews with responsible officials at the department and military services levels, as well as at the U.S. Central, European, Pacific, and Southern Commands. We assessed the reliability of data used in this report and determined that they were sufficiently reliable for our purposes. We conducted our review from September 2005 through August 2006 in accordance with generally accepted government auditing standards. More detailed information on our scope and methodology is provided in appendix I.

Results in Brief

The intelligence community is struggling with the changing security environment, including gaining agreement on issues such as how best to provide decision makers with a more candid recognition of the significant uncertainties in its ability to assess the chemical and biological threat. These problems challenge the ability of the intelligence community to

develop assessments—such as the national intelligence estimate on chemical warfare, which has not been updated since 2002—to help guide DOD and other governmental risk assessments and investment decisions. Generally, the two primary chemical and biological threats facing DOD installations are from adversarial nations using missiles with chemical or biological warheads and from terrorists using explosive devices or other means to release and spread chemical or biological agents. Although several nations are assessed to have chemical and biological warfare capability, the threat is currently assessed with varying levels of confidence to stem primarily from a handful of countries. Three countries are assessed to have the capability to develop at least some chemical and biological agents and possess the missiles to deliver them. DOD expects this threat to increase in coming years as these countries continue to improve their missile programs. The terrorist threat stems primarily from al Qaeda, and while presently limited regarding chemical and biological weapons, this threat is also expected to increase as al Qaeda continues to try to acquire chemical and biological agents. Despite these threat assessments, the intelligence community has recognized significant uncertainties in the quality and depth of intelligence about those threats. Such uncertainty raises questions about the actual level of damage that might be sustained during an attack and the actual threat posed by our adversaries, and is thus critical information for officials making risk management decisions on investments to protect U.S. forces, and those approving funding for such investments. However, while the National Intelligence Council, under the leadership of the Director of National Intelligence, has been able to work together and issue a new 2006 national intelligence estimate assessing and recognizing the uncertainties in the biological warfare threat to help decision makers, it has not been able to issue a revised national intelligence estimate on the chemical warfare threat since 2002. We are recommending that the Director of National Intelligence identify the impediments interfering with his ability to update the chemical warfare National Intelligence Estimate, and take the necessary steps to bring the report to issuance.

Collective protection vulnerabilities at both critical overseas facilities and in some major expeditionary warfighting assets are not widely or consistently addressed with operational capabilities. For example, nearly 80 percent (97 of 125) of overseas sites identified as critical by combatant commanders, based on criteria we provided them, did not have collective protection equipment available. Moreover, while collective protection equipment was limited across all four regional combatant commands, it also was not consistently fielded in high threat areas. About two-thirds of the critical sites in high threat areas did not receive collective protection.

In addition to the uncertainties in assessing key aspects of the chemical and biological threat, the reasons for the limited and inconsistent fielding of collective protection at critical overseas fixed facilities appear to be rooted in the often unclear and inconsistent guidance on its use. While DOD guidance encourages the use of collective protection, it does not prescribe specific criteria to guide overarching strategic decisions on its use. In addition, guidance provided by the individual services—except for the Air Force—is often vague and inconsistent on key issues such as (1) whether decisions on the need for collective protection should be left to local commanders’ discretion or prescribed by the services, (2) when the various types of collective protection are most appropriate, and (3) what functions need to be protected. Similarly, we also found collective protection shortages and inconsistent guidance affected some major expeditionary warfighting assets, such as infantry units, naval vessels, and medical units. For example, despite the Army and Marine Corps infantry often operating in similar environments, the Army called for its ground units to have collective protection while the Marine Corps did not. In addition, while Navy guidance has for many years required ships, such as aircraft carriers, destroyers, frigates, and some supply ships, to have collective protection, about 47 percent of these ships had the required equipment. Small medical units and large hospital systems designed to be set up in rear areas also exhibited shortages and inconsistent requirements. The intelligence uncertainties and vague and inconsistent guidance all combine to make it difficult for commanders to make clear risk management assessments of the need for collective protection and of the risks of not providing it. Given the intelligence uncertainties discussed above and the challenges commanders face in making decisions regarding the need for collective protection, we are recommending that the Secretary of Defense direct the development of clear and consistent criteria to guide overarching strategic decisions on the use of collective protection at DOD facilities. We are also recommending that the department and military services review their current policies and, where appropriate, develop consistent guidance on when such equipment is required for naval, ground, and air forces, and that the services establish consistent criteria on requirements for collective protection at military service medical units.

DOD’s framework for managing collective protection and other related installation protection policies and activities is fragmented, making it difficult for the department to ensure that collective protection resources are allocated efficiently and effectively. More specifically, opportunities to target funds to improve preparedness and protect critical military personnel, facilities, and capabilities from attacks using weapons of mass

destruction may be lost. As we have previously reported, a large number of DOD organizations are engaged in efforts to improve installation preparedness, but no single entity has been given the authority and responsibility to integrate and coordinate all aspects of installation preparedness. In past reports, we and others have recommended the department designate a single integrating authority for installation preparedness, which the department agreed to do, but has not yet implemented. As a result, this lack of an integrated approach and clear lines of authority and responsibilities exacerbates an already complex challenge of balancing warfighting needs associated with the collective protection program with other competing needs. For example, the department has not formally established a methodology to identify facilities and infrastructure that are critical to protect, and therefore has not identified facilities that should receive priority for collective protection or other installation protection improvements. Without an integrated approach, along with clear lines of authority, responsibility and accountability, collective protection resources may continue to be applied inconsistently, and facilities of a lower priority may be afforded protective measures that are needed for more critical facilities. At the close of our review in August 2006, DOD announced that it was beginning a major new reorganization of its policy directorate to respond to the changing security threat and to better support the warfighting commands in this environment. We believe the reorganization provides DOD with an excellent opportunity to realign responsibilities in an effort to correct its long-standing problems in this area. To address these challenges, we believe the Secretary of Defense—as part of the new reorganization—needs to appoint a single authority with responsibility for coordinating and integrating worldwide installation preparedness policies and operating concepts, as previously recommended. We further recommend that this authority also oversee efforts to gain DOD-wide agreement on a criterion for identifying critical facilities and infrastructure and to develop a system for prioritizing critical facilities for funding protection improvements. In written comments on a draft of this report, DOD and the Director of National Intelligence both generally agreed with all of our recommendations. Their written comments and our evaluation of them are on page 33 of this report.

Background

DOD's program to provide collective protection is managed by the Joint Project Manager for Collective Protection under the Joint Program

Executive Office for Chemical and Biological Defense (JPEO).³ The JPEO has overall responsibility for research, development, acquisition, fielding, and other aspects of support for chemical, biological, radiological, and nuclear defense equipment, as well as medical countermeasures and installation protection in support of the National Military Strategy.⁴ As one of eight project managers in the JPEO, the mission of the Joint Program Manager for Collective Protection is to develop, procure, and field collective protection equipment that protects U.S. forces from chemical, biological, and radiological contamination.

Between fiscal years 2002 to 2005 DOD's procurement budget for the overall chemical and biological defense program totaled about \$2.4 billion, including about \$218 million for collective protection. During fiscal year 2006, the procurement budget for collective protection totaled about \$31.4 million. Most of these funds, about \$16.2 million, were budgeted for the procurement of expeditionary medical shelters; another \$10.4 million was budgeted for installation of collective protection equipment on certain classes of Navy ships; and another \$5 million was budgeted to provide collective protection for field hospitals. The Joint Program Manager for Collective Protection has no program to fund the integration of collective protection systems into buildings. Funds for this type of collective protection often come from military service construction or operations and maintenance program funds. Although the Guardian Installation Protection Program under the JPEO was originally designed to provide some funding for collective protection and other installation protection improvements, this program was primarily focused on domestic installations and its funding has been substantially reduced.

In making decisions regarding whether to seek funding for collective protection under DOD's risk management approach, commanders first conduct threat assessments to identify and evaluate potential threats to their facilities and forces, such as terrorist attacks, using intelligence assessments of such factors as capabilities, intentions, and past activities. The intelligence community continuously assesses the chemical and

³The Joint Program Executive Office is under the overall leadership of the Assistant to the Secretary of Defense for Nuclear and Chemical and Biological Defense Programs.

⁴The National Defense Authorization Act for Fiscal Year 1994 directed DOD to centralize the overall coordination and integration of the chemical and biological warfare defense program and the chemical and biological medical defense program. Pub. L. No. 103-160 § 1701.

biological warfare threats to U.S. interests around the world, and the individual agencies issue finished intelligence products with those assessments. Under the leadership of the Office of the Director of National Intelligence, the National Intelligence Council coordinates and issues periodic national intelligence assessments reflecting the overall intelligence community's assessments and judgments on the current and future threat from chemical and biological warfare and other threats.

Following the threat assessments, commanders also use vulnerability and criticality assessments as additional inputs to the decision-making process for making investments. Vulnerability assessments are conducted to identify weaknesses that may be exploited by the identified threats and to suggest options that address those weaknesses. For example, a vulnerability assessment might reveal weaknesses in security systems, computer networks, or unprotected water supplies. Criticality assessments are conducted to evaluate and prioritize important assets and functions for funding in terms of factors such as mission and significance as a target, helping to reduce the potential for expending resources on lower priority assets.

Intelligence Community Reports Uncertainties regarding Key Aspects of Chemical and Biological Threat

The intelligence community is struggling with the changing security environment, including gaining agreement on issues such as how best to provide decision makers with a more candid recognition of the significant uncertainties in its ability to assess the chemical and biological threat. These problems have challenged the community's development of assessments—such as the National Intelligence Estimate on chemical warfare, which has not been updated since 2002—to help guide DOD and other government agencies' risk assessments and investment decisions. Generally, the two primary chemical and biological threats facing DOD installations are from adversarial nations using missiles with chemical or biological warheads and from terrorists using explosive devices or other means to release and spread chemical or biological agents. The missile threat is currently assessed with varying levels of confidence to stem primarily from a handful of countries, and DOD expects this threat to increase in coming years as these countries continue to improve their missile programs. The terrorist threat stems primarily from al Qaeda, and while presently limited regarding chemical and biological weapons, this threat is also expected to increase as al Qaeda continues to try to acquire chemical and biological agents. Despite these assessments, the intelligence community has recently recognized significant uncertainties in the quality and depth of intelligence about those threats. Such uncertainty raises questions about the operational impact that might be sustained

during an attack and the actual threat posed by our adversaries, and is thus critical information for officials making risk management decisions on investments to protect U.S. forces. However, while the intelligence community has been able to work together and issue a new 2006 National Intelligence Estimate assessing and recognizing the uncertainties in the biological warfare threat to help decision makers, it has not been able to issue a revised national intelligence estimate on the chemical warfare threat since 2002.

**Current Assessed Threat of
Missile Attack Stems
Mainly from Three
Countries and Is Expected
to Increase**

The possibility of attack from nation states using missiles—or, in some cases, artillery or Special Forces—to spread chemical or biological agents is viewed as posing a significant threat to U.S. overseas installations. DOD intelligence assessments indicate that the current threat stems mainly from a handful of countries and DOD expects this threat to increase. Intelligence estimates assess that several other countries also have chemical and biological warfare capability and the missiles to deliver agents. However, these countries are not assessed as major threats since our relationships with them are not as adversarial as with the primary threat countries. The intelligence community assesses that the primary threat countries have the capability to produce at least some types of chemical or biological agents, although there is considerable uncertainty regarding many important aspects of these countries' chemical and biological warfare programs. They are also assessed to possess the missiles to deliver them, even though in most cases it is unclear whether they have actually produced, weaponized, or stockpiled any agent. Reports also indicate that the missile inventories of these countries are composed primarily of SCUDs or their variants, with ranges of 300 kilometers to 700 kilometers. Figure 1 shows a SCUD B missile with launcher.

Figure 1: SCUD B Missile with Launcher



Source: DOD.

In addition, the three primary threat countries are assessed not only to be actively pursuing technological improvements to these SCUDs and other ballistic missiles to increase accuracy, range, and survivability but also pursuing the development of new missile systems. For example, intelligence reports indicate that one country is trying to extend the range

and accuracy of some of its existing ballistic missiles and is also developing a solid propellant medium range missile with a range of at least 2,000 kilometers. Similarly, intelligence reports indicate that another of the primary threat countries continues to pursue an intercontinental ballistic missile and continues to develop extended range SCUDs and variants for its medium range missiles that will likely enhance its warfighting capabilities and complicate U.S. missile defense systems.

Terrorist Threat to U.S. Installations Also Is Expected to Increase

Intelligence officials believe that terrorists, primarily al Qaeda, continue to try to acquire chemical and biological agents and therefore pose a threat to overseas DOD installations. While the actual status of al Qaeda's acquisition and development of chemical and biological agents is unclear and its access to effective delivery methods presently is limited, some intelligence agencies expect this threat to increase. For example, some intelligence reporting projects that over the next decade terrorists are likely to conduct a chemical attack against United States' interests either at home or overseas. Future delivery methods could include such devices as balloons, crop sprayers, mortars, or unmanned aerial vehicles. During our review, 22 countries overseas were assessed as being at high risk of some type of terrorist attack.

Significant Uncertainties Exist regarding Key Aspects of the Terrorist and Missile Threat

DOD expects both adversarial nation states and terrorists to increase their chemical and biological warfare capabilities. However, as acknowledged by intelligence agencies and officials, and highlighted by the Commission on the Intelligence Capabilities of the United States Regarding Weapons of Mass Destruction in its report to the President,⁵ the intelligence community has struggled to handle the changing security environment. These struggles include significant uncertainty regarding important aspects of the chemical and biological threat and how to communicate assessments of those threats. These problems can undermine the ability of the intelligence community to develop assessments—such as the National Intelligence Estimate on chemical warfare, produced under the leadership of the Director of National Intelligence. The Estimate has not been updated since 2002 and would help guide DOD and other government agencies' risk assessments and investment decisions.

⁵Commission on the Intelligence Capabilities of the United States Regarding Weapons of Mass Destruction, *Report to the President of the United States* (Washington, D.C.: Mar. 31, 2005).

As discussed in the Commission's report, many of the intelligence community's assessments on secretive nations like Iran and North Korea rely largely on inherently ambiguous indicators, such as capabilities assessments, indirect reports of intentions, deductions based on denial and deception efforts associated with suspect weapons of mass destruction sites, and ambiguous or limited pieces of "confirmatory" evidence. As a result, significant uncertainty arises regarding important aspects of states' actual ability to employ chemical and biological warfare agents in ways needed to cause large-scale casualties. However, as noted in the Commission's report, in past years the intelligence community may not have clearly communicated that uncertainty and dissenting opinions about assessments based on that information, to decision makers in an attempt to provide a "consensus" assessment. According to intelligence officials, in the wake of the intelligence failures in Iraq, the community is attempting to develop reforms such as providing better assessments that more candidly recognize the uncertainties in the intelligence, and dissenting views regarding the meaning of such information; as well as reforms in areas such as the terms and definitions used to describe the severity of the threat. According to these officials, notwithstanding the attempts at reforms, there are continuing difficulties in gaining agreement on such issues which can delay issuance of assessment information. For example, we were able to obtain the recent 2006 national intelligence estimate on the biological warfare threat. However, we were not able to obtain a recent national intelligence estimate on the chemical warfare threat because it remains in development. The chemical warfare estimate was last updated in 2002.

With respect to specific chemical and biological warfare capabilities of individual nation states, we found significant uncertainties regarding the ability of the primary threat countries to use sophisticated dissemination techniques to effectively disperse chemical and biological agents and cause large scale casualties. Most ballistic missiles currently in their arsenals, such as the SCUD and its variants, are relatively inaccurate, and this inaccuracy increases with the range to the target. Accordingly, techniques such as "air bursting" or "submunition" warhead loads may be used to compensate for this inaccuracy. Air bursting, which is literally the bursting of a warhead filled with chemical or biological agents in the air, can dramatically increase the area of contamination compared to the use of warheads bursting on the ground. Similarly, submunitions—which are small bomblets inside a warhead—also improve agent dissemination by covering an area more evenly than bulk filled munitions. Submunitions also provide the opportunity to deliver agents such as sarin that are not

robust enough to survive release subsequent to a ground detonation or supersonic airburst.

There is also significant uncertainty regarding terrorists' ability to acquire and disseminate chemical and biological agents. Unclassified intelligence information states that al Qaeda is interested in acquiring or producing chemical warfare agents such as mustard gas and Sarin, but it is unclear if it has actually acquired any chemical or biological agents. However, as we reported in 1999,⁶ there are many technical challenges that terrorist groups such as al Qaeda would have to overcome in order to cause mass casualties using sophisticated chemical and biological warfare agents. For example, while terrorists do not need specialized knowledge or dissemination methods to use simple toxic industrial chemicals such as chlorine, they would need a relatively high degree of expertise to successfully cause mass casualties with sophisticated agents, such as VX and anthrax. As such, some intelligence reporting concludes that given our limited access to the al Qaeda organization and its heightened sense of operational security, the U.S. intelligence community may not be able to confirm that it has that capability until it is actually used.

Collective Protection Vulnerabilities Are Not Widely or Consistently Addressed

Combined with the uncertainty of the threat as previously discussed, commanders face the difficulty of identifying their vulnerability to that threat and how best to protect against it. In judging the vulnerability of his or her command to that threat, the commander determines whether to have collective protection, and if so, what type of protection is most appropriate and what functions need to be protected. At the critical facilities identified by the combatant commanders, we found that collective protection equipment was not widely or consistently available. The reasons for the limited and inconsistent fielding of collective protection appear to be rooted in unclear and inconsistent guidance on the use of collective protection. For example, while DOD guidance encourages the use of collective protection, it does not prescribe specific criteria to guide strategic decisions on its use. Moreover, guidance provided by the individual military services—excepting the Air Force—is often vague, inconsistent, or both with respect to key issues. Such issues include whether local commanders make the decision to provide or not provide the protection or the services prescribe those decisions, as is done in the

⁶GAO, *Combating Terrorism: Need for Comprehensive Threat and Risk Assessments of Chemical and Biological Attacks*, [GAO/NSIAD-99-163](#) (Washington, D.C.: Sept. 14, 1999).

Air Force; what type of collective protection is most appropriate; and what functions need to be protected. Similarly, we also found collective protection equipment shortages and inconsistent guidance affected some major expeditionary warfighting assets, such as infantry units, naval vessels, and medical units. The intelligence uncertainties and vague and inconsistent guidance all combine to make it difficult for commanders to make clear risk management assessments of the need for collective protection and the risks of not providing it.

Most Critical Fixed Facilities in High Threat Areas Do Not Have Collective Protection

Officials from the four regional combatant commands responsible for overseas operations identified 125 critical sites in 19 countries as critical to their operations, 97 of which did not have collective protection. Moreover, two-thirds of the critical sites in high threat areas did not receive collective protection. In addition, the department did not have an overall DOD-wide list of sites formally identified as critical despite long-standing requirements to identify and prioritize such sites. As a result, in conjunction with several DOD offices, we developed a definition of the term critical and requested that the four regional combatant commanders identify sites meeting that definition.

The 125 sites identified as critical by the combatant commanders are located on 64 large installations and other facilities and included many command and control centers; many intelligence, communications, logistics, and medical facilities; and a number of air bases. These facilities were spread across the Middle East, Europe, Asia, and the Pacific and were largely concentrated in four countries. As shown in table 1, 28 of these sites (22 percent) had collective protection equipment available to allow personnel to continue operations in case of attack. The limited amount of collective protection we found is consistent with the findings of our earlier reports dating back to at least the late 1990s. For example in 1997, we reported that few defense facilities in Southwest Asia and South Korea had collective protection.

Table 1: Critical Overseas Sites with Collective Protection Equipment

Total number of critical sites	Critical sites with collective protection equipment	Critical sites in countries with high terrorist threat or within range of missiles from primary threat countries	
		Sites with collective protection	Sites without collective protection
125	28 (22%)	24	47

Source: GAO analysis of DOD data.

While collective protection was limited in all commands, it was also not consistently fielded in high threat areas. As shown in table 1, 24 of the 28 sites with collective protection equipment were located in areas assessed to be at high risk of attack by terrorists or within range of missile attack by the primary threat countries. However, the 24 sites with collective protection totaled about one-third of the total of 71 critical fixed facilities in high threat areas. For example, 12 of the sites with collective protection were located in one country, which is assessed to have a moderate threat of attack from terrorists, but is within range of attack from a nearby hostile nation. The Army identified 4 of its sites in this country as critical to its mission, but only 2 of the sites had collective protection. Additionally, a 2004 DOD security assessment identified 1 of those 2 sites as having major shortcomings in collective protection equipment, which raised questions about the command post's viability as a warfighting command center. The Air Force provided all 10 of the critical sites on its air bases in this country with collective protection, but critical air bases in another nearby country did not have collective protection despite also being in range of missile attack by the hostile neighbor. Air Force officials told us they view the threat in this country as moderate.

Similarly, the Navy provided collective protection to its five critical sites in one country in the Middle East, which is assessed as being at high threat of terrorist attack and within range of missile attack from a nearby hostile country. However, none of the four critical sites on a key air base in another nearby country were provided with collective protection, despite also being assessed at high threat of terrorist attack and being within range of missile attack from the same hostile country. According to Air Force officials, while there is no collective protection currently at the base, they plan to provide such equipment in the future.

Guidance on the Use of Collective Protection Was Often Unclear and Inconsistent

While it is difficult to precisely specify the ultimate reasons for the limited and inconsistent fielding of collective protection, the quality of guidance on the use of the equipment appears to have been a contributing factor since it was often unclear and inconsistent. DOD does not provide clear overarching strategic guidance on many key issues that would help commanders make decisions on the use of collective protection. Military services and installation commanders are generally expected to address key issues that include what level of threat justifies the investment in collective protection. DOD guidance generally encourages the use of collective protection and provides information on, among other things, the nature of the chemical and biological threat to installations and forces, the types of equipment available, and the pros and cons of using each, but it does not prescribe criteria to guide the use of collective protection. For example, in determining what level of threat justifies the investment in collective protection, the commander assesses vulnerability from both terrorist attack and missile attack. However, as discussed earlier, intelligence on these threats does not make clear whether terrorists, such as al Qaeda, possess the capability to produce mass casualties through the use of chemical or biological weapons. A number of officials told us that they believed the provision of collective protection equipment should be targeted only at installations at high risk of missile attack, given limited DOD resources and the likelihood that terrorist attacks alone lack the capability to produce large-scale damage. However, the guidance does not establish criteria differentiating between the two types of attacks, which would help guide decision making.

In addition to DOD's lack of guidance, military service guidance on the use of collective protection, excepting the Air Force, is often vague, inconsistent, or both. For example, the Army, the Navy, and the Marine Corps do not require collective protection to be provided at their critical fixed facilities or other fixed facilities. Rather, these services rely on the discretion of their local installation commanders to determine whether to have the protection, what type of collective protection should be provided, and which functions should be protected. In contrast, Air Force policy requires that in the absence of guidance from higher commands, Air Force commanders should plan to provide collective protection for 30 percent of the personnel on their bases in areas judged by the intelligence community to be at high risk of attack from terrorists or other non state actors or attack from missiles launched by adversarial nations. Consistent with the Air Force requirement for collective protection, it had the most critical sites with the equipment. Of the 50 critical sites the Air Force operated, 16 had collective protection. Meanwhile, the Army operated 51 critical sites

and provided 7 sites with collective protection, while the Navy operated 23 critical sites and provided 5 with collective protection.

Once the decision to provide collective protection equipment is made, the services—again excepting the Air Force—lack specific guidance to determine what type of protection is most appropriate and what functions need to be protected. The critical facilities identified in our review used both integrated systems—with overpressure and filtration systems built in to existing buildings—as well as simple portable tent systems. Eighteen of the 28 sites had the overpressure and filtration systems integrated into the construction of the buildings, while 10 sites had portable systems such as tents with liners and filtration systems, which could be erected inside the buildings or set up at locations around the installations. While both can provide protection for groups of various sizes, costs vary significantly depending upon factors such as square footage to be protected and other construction elements. According to officials, the portable tent systems may cost as little as \$18,000 depending on the configuration. However, a recent installation of an integrated system at Andrews Air Force Base in Maryland cost about \$1.8 million. In addition, local commands must divert existing operations and maintenance funds to pay for the replacement filters and other costs to sustain the integrated collective protection systems over time. According to officials, this creates a significant disincentive to the initial procurement of integrated collective protection equipment.

Finally, we also found little clear guidance regarding which functions should be protected. Commanders generally do not have guidance to help them determine whether to provide protection for command and control functions, medical treatment facilities, areas for rest and relief, and other base functions, or to cover only parts of these functions. Only the Air Force provided clear guidance on this issue. As discussed above, Air Force regulations state that commanders should plan to provide collective protection for at least 30 percent of base personnel. These regulations also describe requirements for coverage of specific functions, including command and control, medical facilities, and dormitories and dining facilities, and the level of protection required for each. During our discussions at the combatant commands we noted that the other services often had different views on the costs and benefits of the Air Force requirement.

The intelligence uncertainties and vague and inconsistent guidance all contribute to the difficulty commanders face in making clear risk management assessments of the need for collective protection or of the

risk of not providing it. In the absence of clear guidance to aid such decisions, the potential for inconsistent and inefficient allocation of DOD resources increases.

Inconsistent Guidance and Limited Resources Affected Some Major Expeditionary Warfighting Assets

Similar to the inconsistent availability of collective protection for critical overseas fixed facilities, collective protection equipment shortages and inconsistent requirements also affected some major expeditionary warfighting assets, such as infantry units, naval vessels, and medical units (see table 2).

Table 2: Collective Protection at Selected Expeditionary Warfighting Assets	
Asset	Percentage of Required/Authorized
Light infantry units	
Army	70%
Marine Corps	Not required
Navy ships	47%
Air Force aircraft	Not required
Medical units	
Small Army units	18%
Small Marine Corps units	Not required
Army hospital systems	61%
Navy hospital systems	21%
Air Force hospital systems	96%
Marine Corps hospital systems	Not required

Source: DOD.

While differing missions and other factors may explain inconsistencies in the use of collective protection, no clear guidance was evident in many cases to explain why forces operating in similar environments were not provided the same level of protection against chemical or biological attack.

Infantry Units Operating in Similar Environments Have Different Guidance for Collective Protection

Despite operating in similar environments in areas such as Iraq and Afghanistan, Army and Marine Corps infantry units had different requirements for collective protection. For example, according to Army officials, the Army requires its light infantry units at the battalion level to provide collective protection equipment (M20/M20A1 Simplified Collective Protection Equipment Shelters), but the unit commander must make the

decision to actually request this equipment. Army officials told us that as of August 2006, commanders had requested and received 2,506 of the total Army authorization of 3,558 (70 percent). However, they could not provide details on the units requesting the shelters because their systems do not track non major end items.

In contrast, Marine Corps officials stated that they had no requirement for collective protection and no systems on hand. According to these officials, the current systems that are available are too large and bulky to be carried with their fast-moving infantry units. They preferred to depend on avoidance and decontamination techniques to mitigate any potential chemical or biological threat. However, Marine Corps officials also acknowledged their potential vulnerability and the need for collective protection in documents dating back to at least 2002.⁷ Despite the acknowledged need for the systems, concerns were subsequently raised that analyses of the workload requirements for setup, installation, and maintenance requirements, as well as formal techniques and tactics on their use, would be needed before any collective protection systems could be fielded. According to Marine Corps officials, these requirements had not been completed at the time of our review.

About One-Half of Navy Ships Are Not Meeting Requirements

Navy guidance has for many years required ships, such as aircraft carriers, destroyers, frigates, and some supply ships to have prescribed levels of collective protection equipment.⁸ However, as shown in table 3, about 47 percent of naval vessels required to have collective protection have such protection actually installed. According to Navy officials, many of these ships were built prior to the requirement for collective protection, and funds to retrofit these ships have been limited.

⁷U.S. Marine Corps memorandum, Statement of Need for the Interim Collective Protection System, November 5, 2002.

⁸OPNAV Instruction 9070.1, Survivability Policy for Surface Ships of the U.S. Navy, Enclosures (2) and (3) (Sept. 23, 1988).

Table 3: Navy Ships Required to Have Collective Protection

Ship class	Total number of ships	Number of ships with collective protection
Aircraft Carriers	12	0
Amphibious Warfare Ships	36	21
Cruisers	23	0
Destroyers	45	45
Fast Combat Support Ships (Military Sealift Command)	4	4
Frigates	29	0
Totals	149	70 (47%)

Source: Naval Surface Warfare Center.

Navy guidance requiring collective protection also appears outdated, inconsistent, or both in some areas. For example, according to Navy officials, funding limitations have required them to focus existing resources on those ships operating closer in to shore in “littoral” waters, since these ships are more likely to be exposed to chemical or biological agents than ships operating further out in deeper “blue water.” However, the Navy guidance continues to require that aircraft carriers, which generally operate in deep water far from shore, have collective protection installed. Navy officials told us that they believed that the requirement was originally based on the threat of Cold War Soviet naval tactics, and that the guidance had not yet been updated to reflect the current threat environment. We also found inconsistencies in the guidance regarding supply ships, such as station ships (required) and shuttle ships (not required), operating in littoral waters.

Inconsistent Guidance and Shortages of Collective Protection Found at Medical Units

We also found inconsistencies and shortages of collective protection at medical units, such as small units that travel with their parent infantry units and large hospital systems designed to be set up in rear areas. These problems create military limitations and increase risks to U.S. forces and capabilities.

For example, Army infantry units contain medical support groups, such as battalion aid stations, that deploy with the parent unit into battlefield areas. Army guidance requires these medical units to have a certain number of Chemical and Biological Protective Shelters consisting basically of tents with protective linings and overpressure systems attached to the backs of transport vehicles (see fig. 2). In contrast, the Marine Corps had not established any requirements for its medical units to

have these systems. According to Marine Corps officials, avoidance and decontamination strategies are their preferred method for handling chemical or biological events while operating on the battlefield. In addition, according to DOD officials, the Marine Corps often moves in small air and sea transports with little room for collective protection equipment, consistent with its traditional strategic mission. As a result, Marine Corps units may use Army medical support in the areas where they are deployed. However, the increasing use of joint operations, where both operate in the same geographic area at the same time, may be blurring traditional missions.

Figure 2: Chemical and Biological Protective Shelter



Source: DOD.

While the Army requires its medical support units to have collective protection systems, Army figures indicate that only 191 of the 1,035 required systems (18 percent) were on hand as of the end of fiscal year 2005. This situation is similar to that found in our 2002 review of Army medical units in South Korea, when we found that only about 20 percent of the required systems were scheduled to be purchased. The JPEO, which procures these systems for the military services, has plans to procure

additional systems through fiscal year 2014. However, the planned funding for these systems is lagging behind requirements, and the office will not be able to procure all the needed systems by 2014. Officials told us that only about 60 percent of the funding needed has been budgeted, and they need an additional \$323 million to fulfill all requirements.

Collective protection for larger expeditionary hospital operations is provided by large portable tent systems with liners and pressurized interiors, which may be combined to provide 200 to 300 beds or more. The Army, Navy, and Air Force all have versions of these mobile hospitals (see fig. 3). However, while the Air Force generally met its goal, shortages and other serious problems continue to affect Army and Navy medical facility collective protection.

Figure 3: Collectively Protected Expeditionary Medical Support



Source: DOD.

According to Army officials, the Army acquisition goal was to have 23 of these systems on hand, but it was only able to obtain 14 because of funding limitations. Similarly, Navy officials told us that they only had enough tent liners to protect about 460 beds of the approximately 2,220 total bed spaces currently required. Moreover, the collective protection liners used to make the hospital tent systems resistant to chemical and biological attack were not located with the tents, which were prepositioned at various sites around the world. The liners were located at a site in Virginia and would need to be moved to the same locations as the hospital tent systems in order to provide a collective protection capability. According to Navy officials, the Navy is aware of this shortfall

and is in the process of redesigning the requirements to provide collective protection for its mobile fleet hospital tent systems. We reported similar shortfalls in collective protection equipment at Army, Navy, and Air Force portable hospital systems in South Korea in our 2002 report.

Our current review found that the Air Force generally met its goal for the transportable hospital systems. According to data provided by the Air Force, as of May 31, 2006, it had 156 of 162 (96 percent) required systems on hand. Marine Corps officials told us that the Corps does not establish such large transportable hospital operations and it has no systems in stock, instead relying on the Navy to provide for Marine needs in this area.

Fragmented Approach to Overall Installation Protection Policies Undermines Decision Making on Critical Priorities

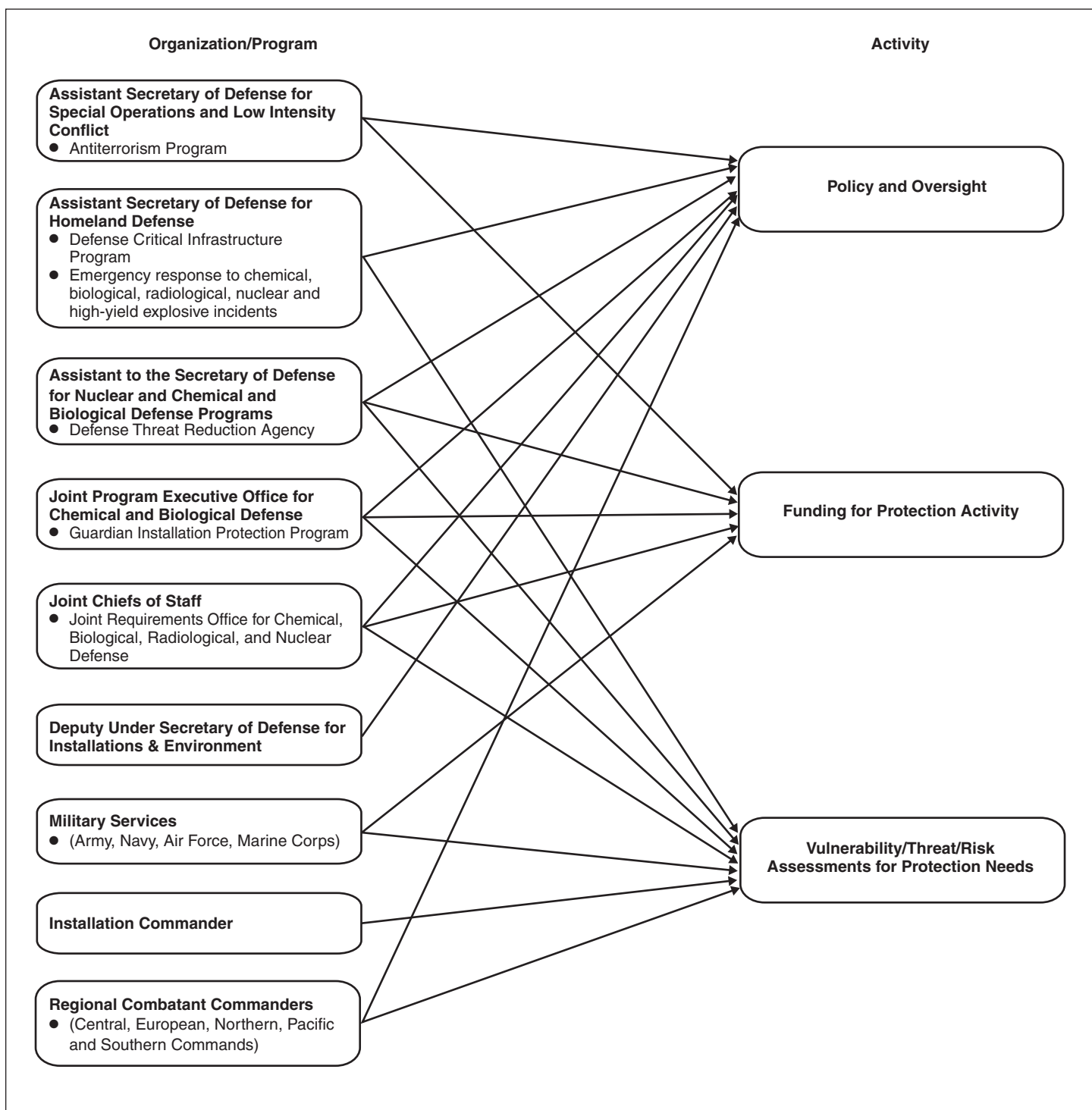
Our prior work and that of several DOD offices has highlighted DOD's fragmented framework for managing the strategic use of collective protection and other installation protection activities. This, combined with the lack of agreed upon installation priorities guided by the robust application of risk management principles, makes it difficult for the department to ensure that funding resources are allocated efficiently and effectively. More specifically, opportunities to target funds to improve preparedness and protect critical military personnel, facilities, and capabilities from attacks using weapons of mass destruction may be lost. Responsibilities for installation protection activities are spread over a variety of DOD organizations and programs. These programs are designed to address protection from threats ranging from terrorist attacks to industrial accidents; however, with their different operating definitions and evolving concepts, gaps and inefficiencies in collective protection program coverage are created. In a 2004 report, we recommended that DOD designate a single authority with responsibility for unifying and coordinating installation protection policies. However, despite DOD's agreement with that recommendation it has not yet implemented it. These problems also prevent DOD from reaching agreement regarding departmentwide standards to identify which facilities and infrastructure are critical and compile an overall list of critical facilities prioritized for receiving funds for protection improvements.

Overall Installation Protection Activities Are Fragmented and Disjointed

DOD policies and resulting management activities that direct the strategic use of collective protection and other installation protection activities are fragmented and disjointed. Responsibilities for key installation protection activities such as (1) policy and oversight, (2) installation threat and vulnerability assessments and risk management decisions on appropriate protections, and (3) funding programs for installation protection

improvements are spread across a variety of programs and DOD organizations, as shown in figure 4. No single DOD organization has responsibility for developing unified policy and coordinating these activities.

Figure 4: Installation Protection Activities Spread across Multiple DOD Organizations



Source: GAO analysis of DOD regulations.

The variety of DOD organizations bring their own approaches to policy and programs for installation protection, and these different approaches can result in unresolved conflict and inefficient application of resources. For example, responsibilities for installation protection (including collective protection) reside primarily with installation commanders, regional combatant commanders, the military services, and the Joint Staff. At the same time, responsibilities for policy and oversight of installation protection activities, such as the antiterrorism program, are spread among the Assistant Secretary of Defense for Special Operations and Low Intensity Conflict, the Assistant Secretary of Defense for Homeland Defense, and others. Special Operations and Low Intensity Conflict developed worldwide antiterrorism policies and standards. However, Homeland Defense is responsible for providing policy and oversight of domestic antiterrorism activities.

Responsibilities for making installation threat and vulnerability assessments and risk management decisions on collective protection or other needed improvements are also spread across multiple organizations and levels. For example, local installation commanders have basic responsibility for these activities, but the military services, combatant commanders, and others with responsibilities for missions taking place at the installations are also involved. At the same time, organizations such as the Defense Threat Reduction Agency and Joint Staff are involved in providing over 20 different types of formal assessments of installation vulnerabilities. For example, the Defense Threat Reduction Agency conducts Joint Staff Integrated Vulnerability Assessments, which examine the vulnerability of large installations with 300 or more personnel to a terrorist attack and the potential for mass casualties and large-scale loss of life. The agency as well as others may also conduct “full spectrum vulnerability assessments.” As the name implies, these assessments examine an installation’s vulnerability to a wide range of threats that could interrupt its ability to fulfill its mission, including attacks using chemical or biological agents, attacks against information networks, and attacks against supporting non-DOD infrastructure.

Similarly, funding for installation protection improvements also involves a variety of organizations. For example, the combatant commanders have no programs of their own to fund improvements at overseas facilities important to their warfighting needs. According to combatant command officials, much of the funding for improvements at the overseas installations comes from the construction or operations and maintenance programs of the military services that operate them. The JPEO Guardian Installation Protection program provided another potential source of

funding, but the program has faced a number of problems. The Guardian program was initiated in 2004 to provide improvements to protect critical facilities from attacks ranging from terrorists to nation states using chemical, biological, radiological, or nuclear weapons. The program was initially provided approximately \$1.2 billion in funding for improvements at 185 domestic and 15 overseas sites from fiscal years 2004 through 2009. However, DOD recently cut funding for the program by about \$760 million. According to officials, because of the cuts, they stopped funding for collective protection and other such improvements while the role of the program and its list of projects were being reviewed by DOD. Antiterrorism programs also provide some potential funding. Oversight of resources used for overall antiterrorism activities is conducted by the Assistant Secretary for Special Operations and Low Intensity Conflict, while oversight of resources used for domestic antiterrorism activities is conducted by the Office of the Assistant Secretary for Homeland Defense.

We and several DOD offices have reported on problems associated with the fragmented installation protection program structure. For example in August 2004,⁹ we reported that the large number of organizations engaged in efforts to improve installation preparedness, and the lack of centralized authority and responsibility to integrate and coordinate departmentwide installation preparedness efforts were hindering overall preparedness efforts and DOD's ability to ensure that its resources were applied efficiently and effectively. Officials at the department, Joint Staff, service, and installation levels told us that the lack of a single focal point to integrate departmentwide installation preparedness efforts among the many involved organizations adversely affected their ability to resolve disagreements and develop needed overarching guidance, concepts of operations, and chemical and biological defense standards. Because of the absence of departmentwide standards, military services and installations faced problems in prioritizing requirements for funding and personnel resources, since such standards provided the basis for calculating requirements. We recommended that DOD designate a single authority with the responsibility to coordinate and integrate worldwide installation preparedness improvement efforts at the department, service, and installation levels.

⁹GAO, *Combating Terrorism: DOD Efforts to Improve Installation Preparedness Can Be Enhanced with Clarified Responsibilities and Comprehensive Planning*, [GAO-04-855](#) (Washington, D.C.: Aug. 12, 2004).

In May 2006, the DOD Inspector General reported that the problems with the fragmented and disjointed program structure were continuing.¹⁰ According to the report, responsibilities for installation protection activities continued to be spread across multiple programs and organizations, with no single DOD organization responsible for unifying and coordinating these activities. Problems such as inadequate program structure, inadequately coordinated program concepts, and a lack of generally accepted terminology describing concepts and doctrine resulted in confusion and disagreement in attempts to establish policy and assign responsibilities, inefficient application of resources, and the lack of a strategic vision balancing all areas of program responsibility. For example, the report found that the lack of clear lines of authority and responsibilities for installation protection activities between the Assistant Secretary for Special Operations and Low Intensity Conflict and the Office of the Assistant Secretary for Homeland Defense was causing confusion and inefficiency. In this regard, coincident with the establishment of the Homeland Defense office in 2003, the Secretary of Defense called for development of a chartering DOD Directive within 45 days to formalize the responsibilities of the new Assistant Secretary and clarify the relationship between Homeland Defense and other offices, such as Special Operations and Low Intensity Conflict. However, according to officials in Homeland Defense, the chartering directive was never formalized because of problems in coordinating with the many DOD offices involved, the continuing evolution of their responsibilities, and the focusing of resources on developing the June 2005 Strategy for Homeland Defense and Civil Support.

In June 2006, DOD's Assistant to the Secretary of Defense for Nuclear, Chemical, and Biological Programs and the Joint Requirements Office also issued a study on installation protection confirming many of the problems identified earlier by us and the DOD Inspector General.¹¹ This study was called for as a result of the funding cuts in the Guardian Installation Protection Program. The study pointed out that problems with the alignment of antiterrorism, chemical and biological defense, critical infrastructure protection, and other programs create difficulty in providing military installations with capabilities for all-hazard planning,

¹⁰Department of Defense, Office of Inspector General: *Evaluation of Defense Installation Vulnerability Assessments*, Report No. IE-2005-001 (Washington, D.C.: May 23, 2006).

¹¹Department of Defense, *Chemical, Biological, Radiological, Nuclear, and High-Yield Explosive Installation Protection Study Report* (Washington, D.C.: June 30, 2006).

preparedness, response, and recovery. The study also noted that DOD organizations were not developing guidance to sufficiently resolve problems related to inadequate policy, standards, and doctrine in these areas. Moreover, it also reported that despite agreement with our 2004 recommendation calling for designation of a single authority responsible for coordinating and integrating overall installation protection efforts, DOD still had not done so. This study made a series of recommendations designed to integrate and unify installation protection and emergency preparedness programs and concepts. This study also developed a plan to improve installation protection at DOD facilities, recommending that some \$560 million be provided for installation protection improvements over 4 years, with priority given to overseas facilities. However, the amount of funding approved by DOD was sufficient only for the lowest levels of improvements and did not include funding for collective protection and chemical and biological detection improvements.

At the close of our review in August 2006, DOD announced a new reorganization that will affect some of the organizations involved in installation protection activities. The need for reorganization was identified in the February 2006 *Quadrennial Defense Review Report* as necessary to respond to the changing security threat by reshaping DOD offices to better support the warfighting combatant commands and respond to the new threat environment. According to DOD officials, the specific policy and organizational changes that will result from the reorganization will develop over the coming months.

Priorities for Allocation of Installation Protection Resources Were Not Identified

Program fragmentation can also prevent DOD from reaching agreement in prioritizing facilities for protection funding. A long-standing series of directives and instructions, as well as DOD's June 2005 "Strategy for Homeland Defense and Civil Support," have recognized the importance of prioritizing installations in light of constrained resources and called on DOD to identify critical infrastructure and to prioritize these assets for funding improvements.¹² Accordingly, early in our review, we requested a list of critical overseas facilities from the Directors for Critical

¹²See Department of Defense Directive 5160.54, Critical Asset Assurance Program (Jan. 20, 1998) (canceled by DODD 3020.40); Department of Defense Instruction 2000.18, Department of Defense Installation Chemical, Biological, Radiological, Nuclear and High-Yield Explosive Emergency Response Guidelines, paragraph E3.1.8 (Dec. 4, 2002); and Department of Defense Directive 3020.40, Defense Critical Infrastructure Program, sections 4 and 5 (Aug. 19, 2005).

Infrastructure Protection and Combating Terrorism, Office of the Assistant Secretary of Defense for Homeland Defense, as well as from other offices throughout DOD and the military services. However, DOD was unable to provide us with such a list.

According to DOD officials, there are a variety of listings of critical facilities and other infrastructure. However, each is compiled from the limited perspective of the military service or other DOD organization responsible for the asset, and not from an overall DOD strategic perspective. According to these officials, gaining agreement on DOD-wide priorities is difficult because of the fragmented organizational structure, as well as policy and program changes following September 11, 2001. According to the May 2006 DOD Inspector General report, a lack of stable funding and centralized prioritization and oversight for critical infrastructure improvements has created problems throughout the combatant commands. According to the report, determining which assets were critical depended on mission requirements that varied with the level of command. Thus, an effort to protect an asset critical to a combatant commander from his or her warfighting perspective could receive a low priority from an installation commander who may be focused on a different, non-warfighting perspective. Similarly, DOD's June 2006 study of installation protection was directed to create a prioritized list of installations to receive funding for protective measures, but was unable to do so. According to the report, it could not develop the list because of the short time frame allowed for completion of the study and the controversial nature of installation prioritization.

In recognition of this problem, we sent a letter to the Secretary of Defense in November 2005 requesting clarification of the situation and DOD actions to correct the problem (see app. II). DOD's response (see app. III) acknowledged the importance of prioritizing its critical assets and stated that it published DOD Directive 3020.40, Defense Critical Infrastructure Program, in August 2005. This directive called for the development of policy and program guidance for DOD-wide critical infrastructure, including criteria and methodology to identify and prioritize these assets. At the time of our review, this effort was being conducted through the Defense Critical Infrastructure Protection Program under the Office of the Assistant Secretary for Homeland Defense. In addition, this office was also directed to conduct an assessment of all of the activities that contribute to the department's ability to achieve mission assurance to identify program gaps and other problems that could interfere with mission assurance. According to program officials, the framework for prioritizing DOD's critical infrastructure was expected to be published in

August 2006 but has not yet been formally adopted. It is unclear when the assessment of program gaps will be completed. It is also unclear to what extent the Assistant Secretary for Homeland Defense will address aspects of critical infrastructure protection related to overseas facilities identified as critical to warfighting missions.

Conclusions

As we and others have observed for several years, notwithstanding the emergence of adversaries that can use chemical and biological weapons, the fielding of collective protection equipment at both critical overseas fixed facilities and major expeditionary warfighting assets remains limited and inconsistent. Assessing the need and priority for such equipment is difficult because of the significant uncertainties in the intelligence about the nature of the chemical and biological threat. While the intelligence community recognizes the need to assess and communicate these uncertainties about the chemical warfare threat, this information has not been available to the agencies that need it. Specifically, the intelligence community, under the leadership of the Director of National Intelligence, has not been able to complete an up-to-date National Intelligence Estimate on chemical warfare in part due to changing assessment and communication policies, as well as issues surrounding the basis or evidence for the assessments. In our view, an updated chemical warfare National Intelligence Estimate is needed to provide a critical input and basis for decisions on investments in chemical warfare defenses, including collective protection.

Uncertainty about the threat can lead to resources being invested in assets where they may not be needed. Conversely, not providing collective protection where it may be needed can place military personnel and operations at increased risk. In addition, allowing the current fragmented and disjointed framework for managing installation protection policies to continue without agreed-upon priorities for funding or clear requirements and service guidance on the appropriate use of collective protection, further increases the likelihood that limited DOD resources will be used inefficiently and ineffectively. DOD's ongoing reorganization provides a good opportunity to review the policy and programmatic gaps and inconsistencies, gain the agreement of the competing organizations needed to integrate the policies and operating concepts, and correct the long-standing need for an overarching authority in this area.

Recommendations for Executive Action

In light of the need for the most current intelligence estimates to help guide the government's—including DOD's—risk assessments and investment decisions, we are recommending that the Director of National Intelligence identify the impediments interfering with his ability to update the chemical warfare National Intelligence Estimate, and take the necessary steps to bring the report to issuance.

To ensure that the problems in the overall installation protection and collective protection policies and programs do not continue to place military personnel and operations at increased risk and undercut the efficiency and effectiveness of DOD resource allocations, we are recommending that the Secretary of Defense—as part of the ongoing reorganization—take the following four actions to ensure better coordination and integration of these activities and clearer guidance on key operating concepts. To ensure better coordination and integration of the overall installation protection activities, we are recommending that the Secretary of Defense

- designate a single integrating authority with the responsibility to coordinate and integrate worldwide installation preparedness policies and operating concepts and
- assign this single authority with the responsibility to oversee efforts to gain DOD-wide agreement on criteria for identifying critical facilities and to develop a system for prioritizing critical facilities and infrastructure for funding protection improvements.

To help ensure clear and consistent guidance in the chemical and biological collective protection program, we are recommending that the Secretary of Defense

- direct the Joint Staff and military services to develop clear and consistent criteria to guide overarching strategic decisions on the use of collective protection at DOD facilities, including issues such as whether decisions on the need for collective protection should be prescribed or left to commanders' discretion, the use of integrated overpressure and filtration systems versus portable structures, and what mission functions must be protected, and
- direct the Joint Staff and military services to review their current policies and, where appropriate, develop consistent requirements on when collective protection is required for medical units, and naval, ground, and air forces.

Agency Comments and Our Evaluation

In written comments on a classified version of our draft report, DOD and the Director of National Intelligence both generally agreed with all five of our recommendations. Their unclassified comments on the classified version are reprinted in appendices IV and V. DOD also provided technical comments, which we incorporated as appropriate.

Regarding our first recommendation that the Director of National Intelligence identify the impediments interfering with his ability to update the chemical warfare National Intelligence Estimate, and take the necessary steps to bring the report to issuance; the Director's office stated that the National Intelligence Council began the process of developing that estimate several months ago, and expects the update to be published in early 2007. In this regard, DOD also called for the Director of National Intelligence to prepare an integrated, worldwide chemical, biological, radiological, nuclear and high-yield explosive threat assessment. DOD stated that current assessments are fragmented and not consistent across geographic areas. We agree that better coordinated and integrated threat assessments, consistent across geographic regions could help improve DOD's decisions regarding investments in the security needs of U.S. forces worldwide. We encourage DOD to make this recommendation directly to the Director of National Intelligence.

DOD also concurred with our second recommendation that the Secretary of Defense designate a single integrating authority with the responsibility to coordinate and integrate worldwide installation preparedness policies and operating concepts. DOD acknowledged that as currently practiced, installation preparedness is not a formal program within the department. DOD also noted that while it agreed with our recommendation, it believed that the combatant commanders should be responsible for their respective areas of responsibility and determine collective protection requirements based on operational needs. We agree that the combatant commanders should have flexibility to recognize special operational needs in the fielding of collective protection in their areas of responsibility. However, as our report clearly points out such determinations should take place within an agreed-upon, coordinated, and integrated framework of DOD-wide installation preparedness policies and operating concepts.

DOD partially concurred with our third recommendation, that the integrating authority discussed in our second recommendation also be given responsibility to oversee efforts to gain DOD-wide agreement on criteria for identifying critical facilities and for developing an overall prioritized list of critical facilities and infrastructure for funding protection improvements. The department agreed with our recommendation to

assign oversight responsibility to a single integrating authority; however, it suggested that rather than develop an overall prioritized list, DOD should develop a “system” to prioritize the critical facilities for funding protective improvements. DOD stated that this “system” to prioritize facilities does not have to be a list “from 1 to n”, but instead may be tiers or bands of assets based on the strategic impact if that asset was lost or degraded, using the all hazards approach to vulnerability assessments. We agree that the identification of prioritized tiers or types/bands of assets could satisfy DOD’s needs in this area, if done appropriately. However, we believe the danger with this approach is the identification of tiers or types of assets so broad as to invite continued disagreement and gridlock, leaving the situation essentially unchanged. Nonetheless, to provide the department with flexibility to implement this key action as a system, we adjusted our recommendation to reflect DOD’s suggestion.

DOD concurred without comment with our fourth and fifth recommendations that the Secretary of Defense direct the Joint Staff and Military Services to develop clear and consistent criteria to guide overarching strategic decisions on the use of collective protection; and that those offices review their current policies and develop consistent requirements on the use of collective protection at medical units, and naval, ground, and air forces.

As we agreed with your office, we plan no further distribution of this report until 30 days from the date of this letter. We will then send copies of this report to the Secretary of Defense, the Director of National Intelligence, and to interested congressional committees. We will also make copies available to others upon request. In addition, this report will be available at no charge on the GAO Web site at <http://www.gao.gov>.

If you or your staff have any questions about this report, please contact me at (202) 512-5431 or dagostinod@gao.gov. Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this report. Key contributors to this report are listed in appendix VI.

Sincerely yours,

A handwritten signature in black ink, appearing to read "Davi M. D'Agostino". The signature is fluid and cursive, with the first name "Davi" and last name "Agostino" being more legible than the middle initial "M".

Davi M. D'Agostino
Director, Defense Capabilities and Management

Appendix I: Scope and Methodology

To examine the current assessments of chemical and biological threats to Department of Defense facilities located overseas, we interviewed intelligence officials from a variety of national and DOD intelligence organizations, and reviewed briefings and other intelligence products generated by these organizations. Specifically, we met with officials from the Central Intelligence Agency, Defense Intelligence Agency, and National Ground Intelligence Center and DOD intelligence officials from each of the four regional combatant commands with critical overseas facilities located in their area of operations. During our meetings, we obtained detailed briefings and other intelligence products, which described the nature and likelihood of a chemical or biological attack on U.S. troops and installations, as well as other documents that described the capabilities of terrorist organizations and adversarial nation states. Although we could not independently verify the reliability of the information, we obtained explanations of the basis for the assessments from intelligence analysts and other officials. We also requested access to and briefings on the most recent national intelligence estimates for both chemical and biological threats from the Office of the Director of National Intelligence. Although the office provided us with the latest intelligence estimate on biological warfare, we were unable to obtain the latest national intelligence estimate on chemical warfare. At the close of our review in August 2006, the estimate remained in draft status and we were unable to schedule a briefing with officials to discuss its contents.

To determine the levels of collective protection provided to critical overseas facilities we worked with several DOD offices, first to develop criterion needed to determine which DOD sites were considered critical, and second, to identify the type and amount of any collective protection equipment at each site. During the time of our review DOD had not developed an overall agreed-upon methodology and listing of facilities considered to be critical. As a result, we were required to develop our own criterion for the purposes of this review. To develop this criterion we reviewed existing DOD regulations and discussed potential options with officials from a variety of DOD offices, including the Defense Critical Infrastructure Program, the Joint Staff Office for Antiterrorism and Homeland Defense, the Joint Requirements Office, the Joint Program Manager for Collective Protection, and the Guardian Installation Protection Program office. The criterion called for DOD to identify those sites that must remain operational to complete its mission during a chemical or biological event, such as command and control nodes, rest and relief areas, emergency medical locations, and intelligence sites, and where there would be no capability to transfer the function or capability to an alternate location. The Joint Staff then assisted us by forwarding our

criterion to the regional combatant commanders for the U.S. Central, European, Pacific, and Southern Commands, and requesting that they identify their critical facilities and the type and amount of any collective protection equipment currently located at those sites. Our method of quantifying the critical sites counted the number of individual buildings identified as critical sites on DOD installations, when identified separately by DOD officials. Following receipt of the responses from the combatant commands, we verified the accuracy of those lists with officials from each command.

To determine the levels of collective protection provided to major expeditionary warfighting assets, such as ground forces, naval vessels, and aircraft, we reviewed DOD's *Annual Report on Chemical and Biological Defense Programs* and interviewed contractors and officials from each service component, the Tank and Automotive Command, and the Joint Program Executive Office for Chemical and Biological Defense to obtain detailed listings of the type and amount of collective protection equipment currently fielded by each service component. Once we obtained these listings, we verified the information with officials from each service and the Joint Program Executive Office. Based on these efforts and our discussions with department and military service officials, we believe that the information we obtained is sufficiently reliable for the purposes of this report.

To examine DOD's framework for managing overall installation protection activities and for prioritizing critical installations for funding, we reviewed applicable regulations, policies, and prior GAO and DOD reports and interviewed officials from a variety of DOD offices responsible for program management and oversight. Specifically, we met with officials from the following offices:

- Office of the Assistant Secretary of Defense for Homeland Defense, Critical Infrastructure Protection Program
- Office of the Assistant Secretary of Defense for Special Operations and Low Intensity Conflict
- Office of the Assistant to the Secretary of Defense for Nuclear and Chemical and Biological Defense Programs
- Joint Program Executive Office for Chemical and Biological Defense
- Joint Requirements Office for Chemical, Biological, Radiological and Nuclear Defense
- Joint Staff, Anti-Terrorism/Homeland Defense
- Office of the Inspector General

-
- Regional combatant commands (Central Command, European Command, Pacific Command, and Southern Command)
 - Military service components (Army, Navy, Air Force, and Marine Corps)
 - Defense Threat Reduction Agency
 - U.S. Army Chemical School

We conducted our review from September 2005 through August 2006 in accordance with generally accepted government auditing standards.

Appendix II: GAO Letter of Inquiry to the Secretary of Defense



GAO

Accountability • Integrity • Reliability

United States Government Accountability Office
Washington, DC 20548

November 21, 2005

The Honorable Donald H. Rumsfeld
The Secretary of Defense

Dear Mr. Secretary:

We are currently reviewing the Department of Defense's (DOD) program for providing collective protection measures to critical overseas facilities in order to guard against attack from chemical or biological weapons (GAO code 350721). This work is being performed in response to a request by the House Subcommittee on National Security, Emerging Threats, and International Relations. For purposes of this review we have requested a list of critical overseas facilities from the Directors for Critical Infrastructure Protection and Combating Terrorism, Office of the Assistant Secretary of Defense (OASD) for Homeland Defense, as well as from other offices throughout DOD and the military services. However, no one in DOD or the individual military services was able to provide us with such a list despite the existence of directives and instructions dating back at least to the late 1980s calling for DOD to identify critical facilities and to develop a methodology for prioritizing them for funding. The purpose of this letter is to obtain DOD confirmation of our understanding of the reasons why this problem has occurred, and to determine the current status of efforts to address this problem.

DOD Directives 5160.54 (1/20/98, now superseded) and 3020.40 (8/19/05) have long called on DOD to identify critical assets/infrastructure and take steps to protect those assets against attack from chemical, biological, and other weapons. DOD Instruction 2000.18 (12/4/02) also calls on DOD to identify critical infrastructure nodes and to consider developing a methodology for prioritizing such installations for funding. Beginning in 2003, proponentcy for that regulation— as well as the more recent DODD 3020.40— was transferred from the OASD for Special Operations and Low-Intensity Conflict to the OASD for Homeland Defense. DOD's June 2005 "Strategy for Homeland Defense and Civil Support" also cited the need to identify critical infrastructure and prioritize the protection of assets because of limitations on resources.

In discussions with officials from the OASD for Homeland Defense, the Joint Requirements Office, the Joint Program Executive Office for Chemical and Biological Defense, and others we were informed that DOD has not been able to compile such a

list of "critical" facilities because of difficulties in gaining agreement on which of the many DOD facilities worldwide were, in fact, critical. Only the Navy was able to identify a methodology for prioritizing installations for funding. According to Navy officials, they have been designated as the lead agency for developing a methodology for prioritizing installations for all of the services and combatant commands. They have developed a draft prioritization methodology based on risk-management concepts and its DOD-wide adoption has been agreed upon, in principle, but it has not yet been formalized.

The Department's inability to come up with a listing of critical overseas facilities and their priorities for funding improvements appears to be partially rooted in problems with the Department's attempts to change its programs and organization to incorporate Homeland Defense as a new priority. According to a recent DOD Inspector General evaluation of the Defense Critical Infrastructure Program (DCIP)¹ the addition of the U.S. homeland as a significant element in the Global War on Terrorism necessitated changes to DOD policy and organization, but attempts to assign responsibility and develop programs were hindered by the lack of generally accepted terminology, concepts, and requirements.

According to Inspector General briefings on this evaluation, the activities associated with critical asset protection are generally defined by "force protection" and "mission assurance" programs. However, responsibilities for these activities are spread across a variety of programs and among multiple Under, Assistant, and Deputy Under Secretaries of Defense. This unclear alignment has resulted in a lack of concise and generally accepted concepts and doctrine, including the lack of standardized definitions and criteria for determining asset criticality; confusion over geographic responsibilities; and non-concurrence with attempts to draft controlling Directives. Similarly, according to this evaluation, while the DCIP program provides limited funding for vulnerability assessments at critical facilities, it makes no provision for prioritizing and funding improvements to mitigate the vulnerabilities identified. As a result, requests for DCIP mitigation funding have to compete with all other requirements through the regular budget process. Decentralized funding without centralized prioritization and oversight have, in turn, discouraged effective mitigation efforts. The determination of which assets are critical depends on mission requirements which vary with the level of command. As a result, a mitigation effort to protect an asset critical to a combatant commander may receive a low priority from an installation commander and, consequently, not receive funding.

While the need to redefine and reprioritize among competing assets since 9/11 is relatively recent, we have found no evidence that a comprehensive DOD-wide, prioritized listing of critical overseas (and homeland) facilities was ever formalized before 9/11. From our discussions with various officials, it appears that a number of listings of critical facilities were put together from the individual perspectives of combatant commanders, military services, and other functional or programmatic proponents. However, no overall DOD-wide, prioritized listing was ever compiled despite requirements to identify critical or key assets and prioritize them dating back

¹ DOD IG Evaluation of the Defense Critical Infrastructure Program, and report on Defense Installation Vulnerability Assessments (Project No. D-2004-DIPOE2-0157).

to at least the late 1980's. For example, DOD Directive 5160.54, Critical Asset Assurance Program (dated Jan. 1998), states that it has been DOD policy to identify assets deemed critical to DOD, prioritize those assets, and "provide a comprehensive and integrated decision support environment" to protect those assets. This directive updated apparently similar policies laid out in its predecessor DOD Directive 5160.54, DoD Key Asset Protection Program, dated June 1989.

We have attempted to obtain clarification of these issues from a variety of DOD offices with responsibilities in this area, but we have been unsuccessful to date. To help ensure that we have a clear understanding of the current situation at DOD, we are requesting that your office respond to the following questions:

1. Is the above description of the current situation at DOD correct, and why have we been unable to obtain a current, accurate listing of overseas facilities critical to DOD operations?
2. What actions has DOD planned to correct this situation, and when will they be completed?

To help ensure that we can be responsive to our requestors, we would appreciate having your response by December 6, 2005. If you or your staffs have any questions, please contact me at (202) 512-5431 or D'AgostinoD@GAO.GOV.

Sincerely yours,



Davi M. D'Agostino, Director
Defense Capabilities and Management

Appendix III: DOD Response to GAO Letter of Inquiry



HOMELAND
DEFENSE

ASSISTANT SECRETARY OF DEFENSE
2600 DEFENSE PENTAGON
WASHINGTON, DC 20301-2600

JAN 19 2006

Ms. Davi M. D'Agostino
Director, Defense Capabilities and Management
U.S. Government Accountability Office
Washington, D.C. 20548

Dear Ms. D'Angostino:

Thank you for your November 21, 2005 letter to the Secretary of Defense regarding GAO code 350721. The Secretary has directed that I respond on his behalf.

In your letter, you outlined the unsuccessful effort to obtain a list of overseas facilities critical to DoD operations. You asked our Department to respond with the reasons for our inability to produce this list and to identify the actions planned to correct the situation. The Joint Staff forwarded your request for information to SOUTHCOM, EUCOM, PACOM, and CENTCOM. Each combatant command has now provided your office with its list of overseas critical facilities.

Recognizing the importance of this issue, my office published Department of Defense Directive 3020.40, Defense Critical Infrastructure Program in August 2005. This publication directed the development of policy and program guidance for defense critical infrastructure, including standards to identify and prioritize critical infrastructure. In addition, my office developed a methodology that will provide a uniform system of identifying and prioritizing DoD critical infrastructure and facilities. This methodology is in coordination and will be provided to you when it has been approved.

You also commented that there appeared to be an unclear alignment of the activities and programs associated with mission assurance. In June 2005, my office published the *Strategy for Homeland Defense and Civil Support*. In the accompanying implementation memorandum, the Deputy Secretary of Defense directed us to conduct an assessment of all activities that contribute to the Department's ability to achieve mission assurance. My office developed the attached Mission Assurance Framework to guide the assessment effort.

You may contact Mr. William Bryan, Director, Critical Infrastructure Protection,
OASD(HD)/FP&E, 703-614-8330 for additional information.

Sincerely,



Paul McHale

Enclosures:
As stated

Appendix IV: Comments from the Department of Defense



NUCLEAR AND CHEMICAL
AND BIOLOGICAL DEFENSE
PROGRAMS

ASSISTANT TO THE SECRETARY OF DEFENSE
3050 DEFENSE PENTAGON
WASHINGTON, DC 20301-3050

DEC 01 2006


Ms. Davi D'Agostino
Director, Defense Capabilities and Management
U. S. Government Accountability Office
441 G Street, N.W.
Washington, D. C. 20548

Dear Ms. D'Agostino:

This is the Department of Defense (DoD) response to the GAO draft report,

dated October 12, 2006 (GAO Code 350721).

The Department concurs with recommendations 4 and 5, and concurs with comment on recommendations 1-3. Detailed comments on the report, its recommendations, and its security classification are enclosed.


Arthur T. Hopkins
Acting

Enclosures:
As stated

UPON REMOVAL OF ATTACHMENTS THIS
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GAO DRAFT REPORT – DATED OCTOBER 12, 2006

**DEPARTMENT OF DEFENSE COMMENTS
TO THE RECOMMENDATIONS**

(U) **RECOMMENDATION 1:** In light of the need for the most current intelligence estimates to help guide the government's – including DoD's – risk assessments and investment decisions, we recommend that Director of National Intelligence identify the impediments interfering with his ability to update the chemical warfare National Intelligence Estimate and take the necessary steps to bring the report to issuance.

(U) **DoD RESPONSE:** Concur with comment. DoD needs the chemical assessment referenced, but also recommends the Director of National Intelligence prepare an integrated, overall, worldwide Chemical, Biological, Radiological, Nuclear, and High-yield Explosive (CBRNE) threat assessment. Current assessments are fragmented and not consistent across geographic areas.

(U) **RECOMMENDATION 2:** To ensure better coordination and integration of the overall installation protection activities, the GAO recommended that the Secretary of Defense designate a single integrating authority with the responsibility to coordinate and integrate worldwide installation preparedness policies and operating concepts.

(U) **DoD RESPONSE:** Concur with comments. DoD agrees there should be a single integrating authority within the Department to coordinate and integrate worldwide installation preparedness policies and operating concepts. Installation preparedness, as used in the 2003 Report to Congress on Preparedness of Military Installations for Preventing and Responding to Terrorist Incidents, is only an integrating concept and is not a formal program within the Department. During fielding, though, COCOMs should be responsible for their respective Areas of Responsibility and determine collective protection requirements based on operational needs.

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(U) **RECOMMENDATION 3:** To ensure better coordination and integration of the overall installation protection activities, the GAO recommended that the Secretary of Defense assign this single authority with responsibility to oversee efforts to gain DoD-wide agreement on criteria for identifying critical facilities and to develop an overall prioritized list of critical facilities and infrastructure for funding protection improvements.

(U) **DoD RESPONSE:** Concur in part. Change recommendation to read: “To ensure better coordination and integration of the overall installation protection activities, the GAO recommends that the Secretary of Defense assign a single policy authority the responsibility to oversee efforts to gain DoD-wide agreement on criteria for identifying critical facilities and develop a system to prioritize the critical facilities for funding protective improvements. The prioritization does not have to be a list from 1 to “n,” but it may be ‘tiers’ or ‘bands’ of assets based on strategic impact if lost/degraded utilizing the all hazards approach of mission assurance.

(U) **RECOMMENDATION 4:** To help ensure clear and consistent guidance in the chemical and biological collective protection program, the GAO recommended that the Secretary of Defense direct the Joint Staff and the Military Services to develop clear and consistent criteria to guide overarching strategic decisions on the use of collective protection at DoD facilities, including issues such as whether decisions on the need for collective protection should be prescribed or left to commander’s discretion, the use of integrated overpressure and filtration systems versus portable structures, and what mission functions must be protected.

(U) **DoD RESPONSE:** Concur.

(U) **RECOMMENDATION 5:** To help ensure clear and consistent guidance in the chemical and biological collective protection program, the GAO recommended that the Secretary of Defense direct the Joint Staff and Military Services to review their current policies and, where appropriate, develop consistent requirements on when collective protection is required for medical units, and naval, ground, and air forces.

(U) **DoD RESPONSE:** Concur

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Appendix V: Comments from the Director of National Intelligence

OFFICE OF THE DIRECTOR OF NATIONAL INTELLIGENCE
WASHINGTON, DC 20511

November 3, 2006

Davi M. D'Agostino
Director, Defense Capabilities
and Management
Government Accountability Office
Washington, DC 20548

Dear Ms. D'Agostino:

Thank you for the opportunity to review the draft GAO study

Regarding the draft study's recommendation concerning an updated National Intelligence Estimate (NIE) on chemical warfare, several months ago, the National Intelligence Council (NIC) began the process of assembling, drafting, and coordinating such an NIE. This process is ongoing. The NIC currently expects the updated NIE to be published in early 2007.

If you have further questions about this or any other matter please contact Peter Petrihos in the Office of Legislative Affairs at (202) 201-1156.

Sincerely,



Kathleen Turner
Director of Legislative Affairs

Portions of this correspondence have been deleted for security reasons.

Appendix VI: GAO Contact and Staff Acknowledgments

GAO Contact

Davi M. D'Agostino, (202) 512-5431 or dagostinod@gao.gov

Acknowledgments

In addition to the contact named above, William Cawood, Assistant Director (retired); Robert Repasky, Assistant Director; Lorelei St. James, Assistant Director; Shawn Arbogast; Angela Bourciquot; Grace Coleman; Jason Jackson; John Nelson; Rebecca Shea; Karen Thornton; and Cheryl Weissman also made key contributions to this report.

Related GAO Products

Defense Management: Additional Actions Needed to Enhance DOD's Risk-Based Approach for Making Resource Decisions. [GAO-06-13](#). Washington, D.C.: November 15, 2005.

Combating Terrorism: DOD Efforts to Improve Installation Preparedness Can Be Enhanced with Clarified Responsibilities and Comprehensive Planning. [GAO-04-855](#). Washington, D.C.: August 12, 2004.

Combating Terrorism: Need for Comprehensive Threat and Risk Assessments of Chemical and Biological Attacks. [GAO/NSIAD-99-163](#). Washington, D.C.: September 14, 1999.

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